

REMARKS/ARGUMENTS

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the amendments and remarks herewith. The present amendment is being made to facilitate prosecution of the application.

I. STATUS OF THE CLAIMS AND FORMAL MATTERS

Claims 1-4, 9, 10, 14-16 and 19 are currently pending. Claims 1, 14-16 and 19, which are independent, are hereby amended. Claim 9 has been indicated as allowable. Support for this amendment is provided throughout the Specification. No new matter has been introduced by this amendment. Claims 5-8, 11-13, 17, 18 and 20-38 have been canceled without prejudice or disclaimer of subject matter. Changes to the claims are not made for the purpose of patentability within the meaning of 35 U.S.C. §101, §102, §103, or §112. Rather, these changes are made simply for clarification and to round out the scope of protection to which Applicants are entitled.

II. REJECTIONS UNDER 35 U.S.C. §103(a)

Claim 1-4, 10, 14-16 and 19 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent No. 5,418,546 to Nakagakiuchi et al. (hereinafter, merely "Nakagakiuchi") in view of U.S. Patent No. 5,517,242 to Yamada et al. (hereinafter, merely "Yamada").

III. RESPONSE TO REJECTIONS

Claim 1 recites, *inter alia*:

“An image pick-up apparatus for picking up an image of an object, the image pick-up apparatus comprising:

an image pick-up unit having a light receiving surface configured to receive light from the object to carry out photo-electric conversion, and adapted to output a pixel value obtained as the result of the photo-electric conversion;

an evaluator configured to evaluate the pixel value;

a controller configured to control, in pixel units, exposure time with respect to the light receiving surface on the basis of the evaluation by the evaluator;

a storage unit configured to store plural pixel values output from the image pick-up unit and the exposure times of pixels corresponding to the plural pixel values, the plural pixel values included in a frame or a field, and an exposure time of a particular pixel may be different than an exposure time of another pixel; and

a correcting unit configured to correct the plural pixel values stored in the storage unit based on the exposure times stored in the storage unit.”

(emphasis added)

As understood by Applicants, Nakagakiuchi relates to a visual display system in which light from a light source is modulated by a spatial light modulator having a plurality of controllable elements arranged in a first dimension. The spatial light modulator varies the amount of light received from the lens and supplied to a photoelectric conversion device, thereby controlling the exposure of the image focused by the lens.

Applicants submit that Yamada relates to an image sensing device with an expanded dynamic range. More specifically, Yamada describes a CCD imager with an electronic shutter for picturing an object twice with different exposures, i.e., first and second

exposures. Thus, the pixels in the two picture frames are the same exposure times, i.e., the first exposure time and the second exposure time.

However, claim 1 recites that the exposure time of the pixels is not the same in pixel units.

Accordingly, Applicants respectfully submit that Nakagakiuchi and Yamada, taken alone or in combination, fail to teach or suggest the features of claim 1. Specifically, Applicants submit that there is no teaching or suggestion of an image pick-up apparatus for picking up an image of an object, the image pick-up apparatus comprising a storage unit configured to store plural pixel values output from the image pick-up unit and the exposure times of pixels corresponding to the plural pixel values, the plural pixel values included in a frame or a field, and an exposure time of a particular pixel may be different than an exposure time of another pixel, as recited in claim 1.

None of the other references cited by the Examiner teach the above defined subject matter of claim 1.

Therefore, Applicants respectfully submit that claim 1 is patentable.

For reasons similar to those described above with regard to independent claim 1, claims 14-16 and 19 are also patentable.

Therefore, Applicants submit that independent claims 1, 14-16 and 19 are patentable.

IV. DEPENDENT CLAIMS

The other claims are dependent from independent claim 1, discussed above, and are therefore patentable for at least the same reasons. Since each dependent claim is also deemed

to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

CONCLUSION

In the event the Examiner disagrees with any of the statements appearing above with respect to the disclosures in the cited reference, or references, it is respectfully requested that the Examiner specifically indicate the portion, or portions, of the reference, or references, providing the basis for a contrary view.

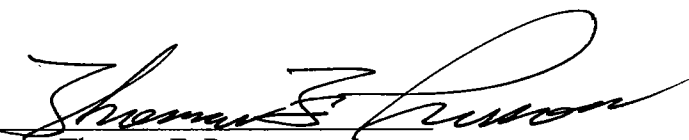
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In view of the foregoing amendments and remarks, it is believed that all of the claims in this application are patentable and Applicants respectfully request early passage to issue of the present application.

Respectfully submitted,

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